Optical Chopper

SR540 — Optical chopper system

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- 4 Hz to 3.7 kHz chopping frequencies
- Low phase jitter
- Single and dual beam experiments
- Sum & difference reference outputs

- SR540 ... $1695 (U.S. list)

SR540 Specifications

The SR540 chopper will handle all your optical chopping requirements — from simple measurements to dual-beam and intermodulation experiments. The SR540 has a 4-digit frequency display, front-panel frequency control, analog voltage frequency control, and two reference outputs with selectable operating modes. Two anodized aluminum blades are provided: a 5/6 slot blade for frequencies up to 400 Hz, and a 25/30 slot blade for frequencies up to 3.7 kHz. Reference outputs are provided for frequencies corresponding to each row of slots, as well as the sum and difference frequencies.

Chop frequency	4 Hz to 400 Hz (5/6 slot blade) 400 Hz to 3.7 kHz (25/30 slot blade)
Frequency stability	250 ppm/°C (typ.)
Frequency drift	<2 %, 100 Hz < f < 3700 Hz
Phase jitter (rms)	0.2° (50 Hz to 400 Hz) 0.5° (400 Hz to 3.7 kHz)
Frequency display	4-digit, 1 Hz resolution and accuracy
Frequency control	10-turn pot with 3 ranges: 4 Hz to 40 Hz 40 Hz to 400 Hz 400 Hz to 3.7 kHz
Input control voltage	0 to 10 VDC for 0 to 100 % of full scale. Control voltage overrides frequency dial.
Reference modes	f_{inner}, f_{outer}, $5 \times f_{outer}$, $f_{inner} + f_{outer}$, $f_{outer} - f_{inner}$
Dimensions	Controller: 7.7" × 1.8" × 5.1" (WHD) Head: 2.8" × 2.1" × 1.0" (WHD)
Blade diameter	4.04" ± 0.002"
Cable length	6 ft.
Power	12 W, 100/120/220/240 VAC, 50/60 Hz
Warranty	One year parts and labor on materials and workmanship, 90 days on motor

Ordering Information

SR540	Optical chopper	$1695
O5402530	25/30 dual-slot replacement blade	$50
O54056	5/6 dual-slot replacement blade	$50
O5405	5-slot replacement blade	$50
O54030	30-slot replacement blade	$50
O540RCH	Replacement chopper head	$450